

*E. G. Bennett  
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ANNUAL CENSUS OF BIRDS AND MAMMALS ON THE  
GREEN RIVER AND UPPER KEDGWICK WATERSHEDS  
(1948 - 1965)  
(Green River Project)

by

C. W. Bennett, G. A. McDougall and R. F. Morris

FOREST RESEARCH LABORATORY  
FREDERICTON, NEW BRUNSWICK  
INFORMATION REPORT M-X-2

DEPARTMENT OF FORESTRY

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## PREFACE

Since 1948 the entomological staff of the Green River Project has maintained records of the number of larger mammals and birds observed during car, foot and canoe travel over the Green River Watershed and Upper Kedgwick (mainly the Kedgwick check area) Watershed (Fig. 1).

The original purpose was twofold:

(1) A severe spruce budworm outbreak was anticipated, so this seemed a good opportunity to compare 'before' and 'after' observations, in the hope that rough census data of this sort might be useful in testing various hypotheses concerning the effects of budworm outbreaks on game species and on the ecology of an area.

(2) A more accurate annual census of small mammals and birds was already underway on the series of 20-acre ecological plots where most of our budworm studies were carried out. It seemed possible that a rough census of the relative abundance of larger species might be useful in interpreting the impact of these species on the ecology of the plots.

As members of our staff were required to keep diaries in any case, there was no appreciable expenditure of time in recording the distance travelled each day and the number of birds and animals observed. The diaries were collected and summarized mainly by C. W. Bennett until 1960, and subsequently, with a reduction in the number of species recorded, by G. A. McDougall.

Recently there have been several expressions of interest in these data, both from wildlife officers of the New Brunswick Department of Lands and Mines and from graduate wildlife students of the University of New Brunswick. The observations are therefore summarized in Tables 1 - 9, which should be self-explanatory. In order to avoid too many decimals, all results are expressed as numbers per 10,000 miles. The number of observers, and the total number of miles covered each year, (May to October, inclusively), are shown at the bottoms of Tables 1 - 3. It will be clear that the car mileage provides the best index; the area is now serviced by a good system of woods roads so, except for the early years of the Green River Project, the foot and canoe mileage required in visiting study areas, etc., was too small to provide adequate observations.

Population density is only one of a number of factors determining the number of animals recorded during roadside counts (eg., see Kline, P. D. 1965. Factors influencing roadside counts of cottontails. J. Wildlife Management 29: 665-671). We therefore present the data for use but accept no responsibility for conclusions that may subsequently be derived from them. At the very least, however, the results provide an interesting record of the relative frequency with which different species of birds and mammals were encountered in a section of the boreal forest during an early period in its convenient accessibility to man (see extreme right-hand columns of Tables 1 - 3, and Tables 7 and 8).

Trends for three of the many species recorded are shown in Fig. 2. Rabbits show the expected 10-year rhythm, and the number of red foxes observed (Table 1) seems to respond to at least the 1961 rabbit peak. The number of deer observed agrees only roughly with the record of hunting success, but the latter trend is undoubtedly influenced by the fact that the area has been made much more accessible to hunters in the last few years. The steady decline in the number of ruffed grouse observed (Fig. 2, and supported by the foot data of Table 2) may be real, or may reflect in part the increased wariness of this species as hunting pressure increases. See Table 4 for a dramatic expression of the roadside "sunning" of grouse as the weather turns cold in October.

As the budworm outbreak caused no severe tree mortality, except in parts of the unsprayed Kedgwick check area, the data fail to serve the main purpose for which they were recorded. With respect to spraying, the northeastern quarter of the Green River Watershed, which we travelled infrequently, was sprayed in 1953 and 1955, and all the Watershed except the lightly infested northwestern quarter was sprayed in 1957. The parts of the Watershed used most frequently during the census period were therefore unsprayed, or sprayed only once at the rate of 0.5 lb. DDT per acre, so it is unlikely that populations of larger birds and mammals were influenced appreciably.

Fig. 1

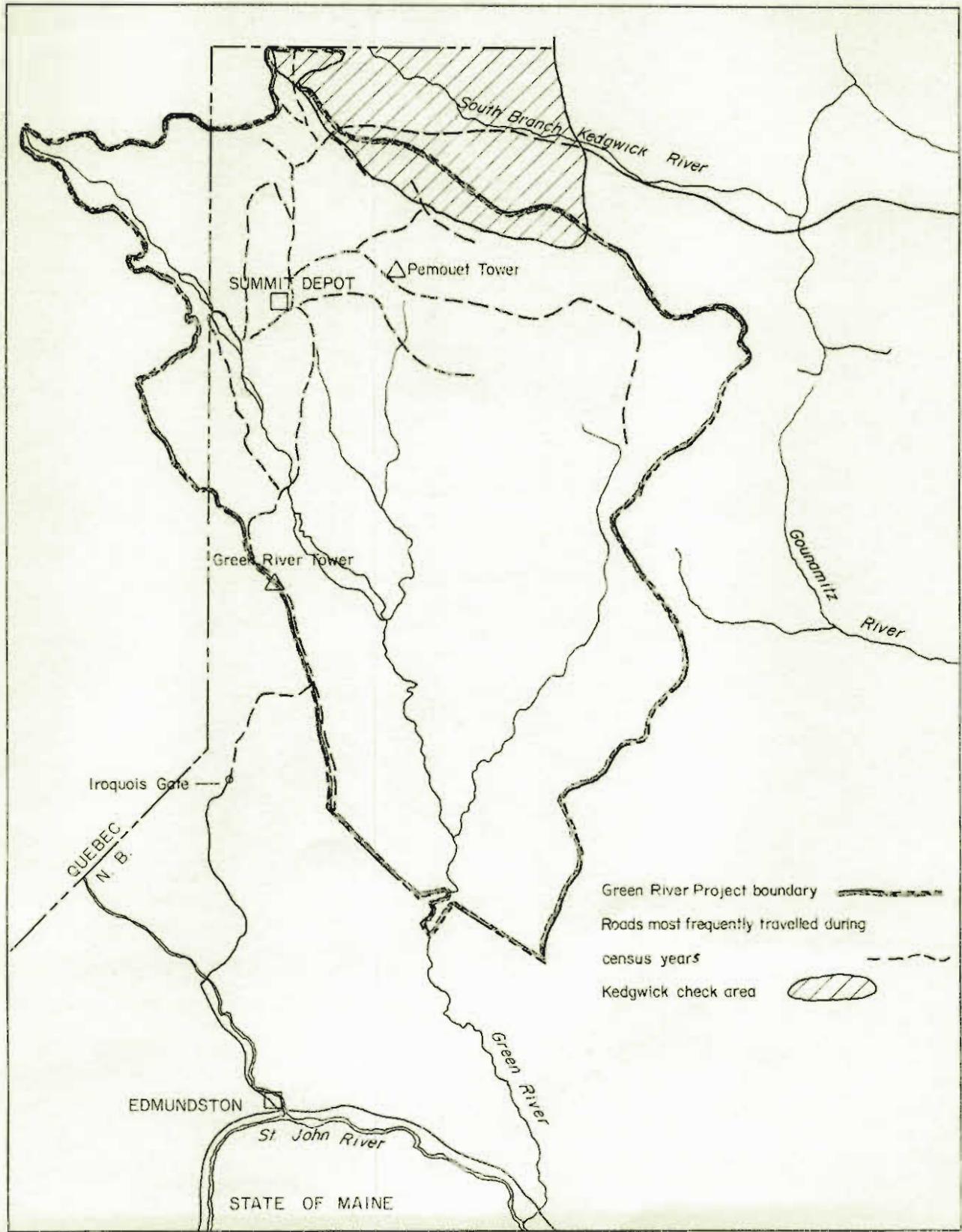


Fig. 2

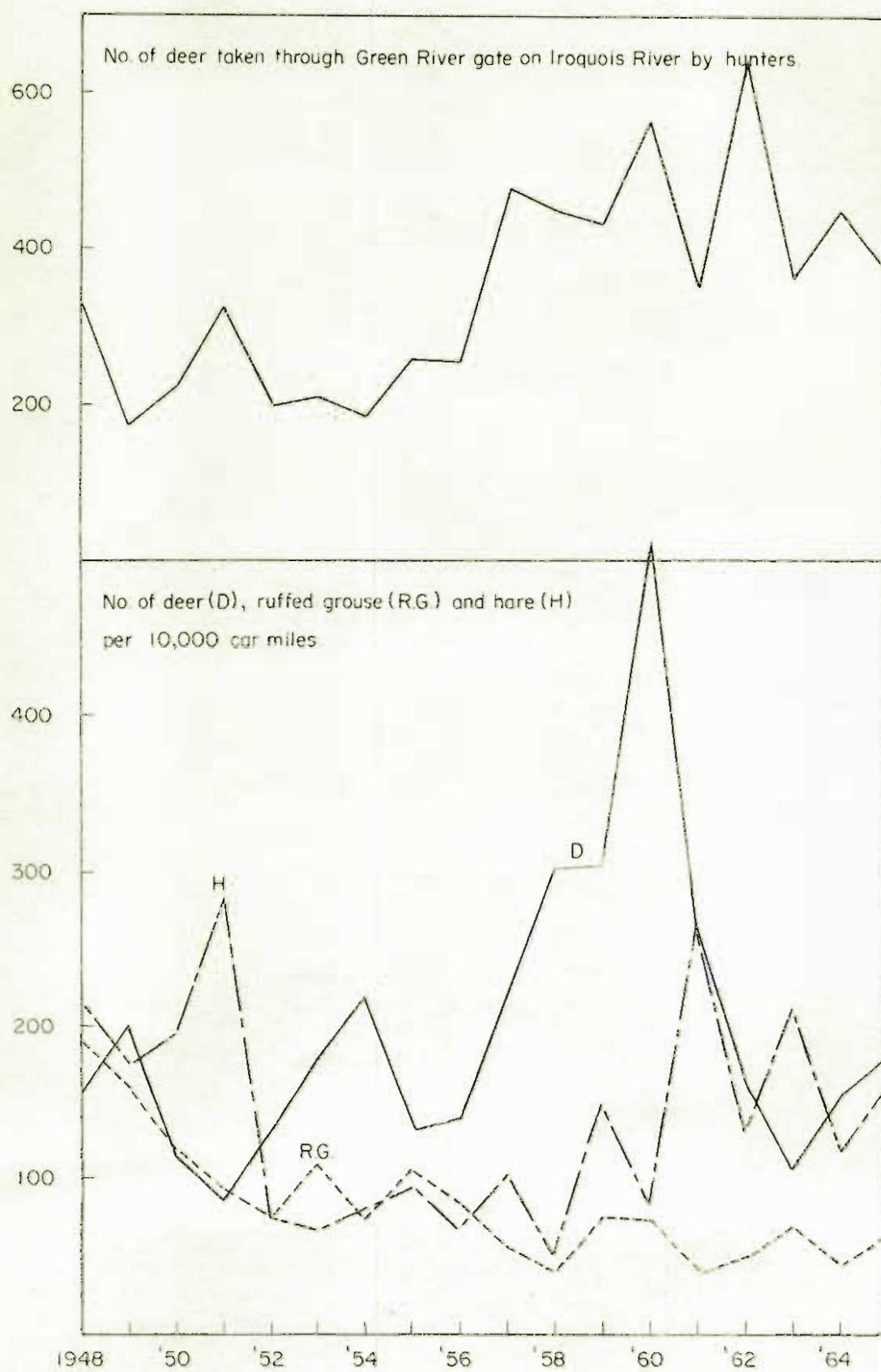


Table 1. Number of Mammals and Birds Observed per 10,000 Car Miles. Green River and Upper Kedgwick Watersheds, 1948 - 1965.  
 (Dash indicates zero record; NR indicates records were not kept on this species in certain years)

SP	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	No.		
																			Years		
Bear	-	-	-	1.04	2.11	1.22	1.58	-	0.497	0.98	0.509	2.48	1.85	2.13	2.83	2.61	-	2.85	2.40	18	
Beaver	2.42	-	-	0.521	-	0.306	-	-	6.62	0.825	0.509	1.10	1.23	1.42	2.83	2.09	3.10	-	-	18	
Bobcat	-	-	-	1.26	1.26	-	-	-	-	-	0.354	NR	NR	NR	NR	NR	NR	NR	NR	0.927	
Chipmunk	NR	-	7.33	8.86	3.80	1.83	1.90	1.74	2.22	6.88	6.60	-	8.85	NR	NR	NR	NR	NR	NR	13	
Deer	156	201	112	87.0	130	179	220	132	140	223	302	303	512	272	166	107	153	182	18	198	
Fisher	-	-	-	-	-	0.633	0.497	-	1.78	-	-	-	-	-	-	NR	NR	NR	NR	14	
Fox	42.3	55.1	17.7	26.6	39.3	37.0	36.0	26.7	21.2	17.1	23.7	46.3	32.6	96.1	25.6	72.4	20.5	33.1	18	35.1	
Hare	217	178	198	283	75.2	70.1	81.3	97.6	68.2	104	50.1	151	84.3	265	131	214	119	160	18	218	
Lynx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NR	NR	NR	NR	NR	13	
Marten	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NR	NR	NR	NR	NR	13	
Mink	-	-	-	-	-	1.26	-	-	-	-	-	-	-	-	NR	NR	NR	NR	NR	13	
Moose	-	-	-	-	-	1.04	1.26	1.83	0.633	-	1.23	0.254	1.10	4.32	-	5.18	-	1.86	-	2.40	
Muskrat	-	1.99	-	-	0.521	0.430	-	-	0.633	-	0.492	-	0.275	-	-	NR	NR	NR	NR	NR	13
Otter	-	1.50	-	-	-	-	-	-	-	-	-	-	-	-	NR	NR	NR	NR	NR	13	
Panther	-	-	-	12.0	-	-	-	-	-	-	-	-	-	-	NR	NR	NR	NR	NR	13	
Porcupine	44.5	5.50	12.0	10.1	3.98	3.16	3.49	3.45	0.509	1.92	0.617	0.354	0.941	6.78	-	2.85	6.24	18	6.72		
Skunk	-	8.63	3.06	3.65	5.91	1.53	2.84	1.74	1.47	-	-	-	-	-	4.25	NR	NR	NR	NR	13	
Squirrel, F.NR	-	-	-	-	-	23.7	28.8	69.2	24.4	25.1	-	-	-	-	NR	NR	NR	NR	NR	12	
Squirrel,R.NR	49.7	115	186	-	-	-	-	-	-	-	29.8	25.3	7.41	18.8	NR	NR	NR	NR	NR	12	
Weasel	-	-	-	1.56	-	-	-	-	-	-	0.254	0.550	-	NR	NR	NR	NR	NR	NR	13	
Woodchuck	0.9	10.6	9.17	8.85	4.65	2.14	5.37	2.74	4.68	3.06	6.33	2.47	8.85	8.48	4.17	7.43	1.14	9.12	18	6.12	
Bittern	-	-	-	-	0.425	-	-	-	-	-	-	-	-	-	NR	NR	NR	NR	NR	13	
Duck, B.	-	13.9	1.22	13	6.34	7.96	2.21	1.24	6.89	7.89	5.50	1.23	8.50	-	-	NR	NR	NR	NR	NR	13
Eagle, B.	-	-	-	-	-	0.633	-	-	-	-	-	-	-	-	-	NR	NR	NR	NR	NR	13
Goose, C.	-	3.32	-	-	-	-	19.0	-	-	-	-	-	-	-	NR	NR	NR	NR	NR	0.049	
Grouse, R.	191	164	117	96.9	76.5	111	76.2	106	89.1	59.8	40.4	78.4	78.0	40.5	50.6	70.0	45.1	61.5	18	86.2	
Grouse, S.	-	6.11	3.65	7.65	11.1	4.23	7.88	2.55	1.92	0.617	8.85	NR	NR	NR	NR	NR	NR	NR	NR	13	
Hawks	-	34.8	27.1	22.0	34.0	19.3	29.1	7.63	1.07	13.7	5.56	10.6	NR	NR	NR	NR	NR	NR	NR	13	
Heron, GR.	-	-	-	0.425	0.306	0.316	-	0.246	-	3.09	-	-	-	-	NR	NR	NR	NR	NR	13	
Loon	-	-	-	3.38	1.84	0.633	-	2.46	0.509	0.275	-	1.42	-	-	NR	NR	NR	NR	NR	13	

Table 1 (cont'd)

	SP	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	No Years Mean
Merganser	-	4.65	4.28	1.04	2.11	2.45	0.95	-	0.492	0.509	-	-	-	2.12	NR	NR	NR	NR	13	1.43
Osprey	-	-	1.83	1.56	2.54	1.22	0.95	0.248	0.246	0.509	-	-	1.85	0.354	NR	NR	NR	13	0.869	
Owls	-	-	4.28	3.12	1.69	2.14	-	0.248	1.72	0.509	-	-	1.23	0.354	NR	NR	NR	13	1.18	
Whistler	-	-	-	-	-	-	1.26	-	-	0.509	2.20	1.23	1.06	-	NR	NR	NR	13	0.481	

Observe  
No. 01

No. Miles 8272 15062 16362 19190 23661 32671 31626 40171 40613 39265 36345 16192 28234 21234 19166 16149 17521 20824

Table 2. Number of Mammals and Birds Observed per 10,000 Foot Miles, Green River and Upper Kedgwick Watersheds, 1948 - 1965  
 (Dash indicates zero record; NR indicates records were not kept on this species in certain years)

	SP	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	No. Years Mean		
Bear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.79		
Beaver	22.5	-	27.1	37.2	-	-	37.9	-	94.7	202	52.6	117	16.7	196	242	90.0	30.5	25.0	-	18 64.1		
Bobcat	-	-	-	24.8	-	-	-	-	-	-	-	19.6	-	18.0	NR	NR	NR	NR	-	13 4.80		
Chipmunk	NR	-	81.2	62.1	-	133	121	211	29.1	217	157	169	180	NR	NR	NR	NR	NR	NR	12 113		
Deer	382	464	541	146	539	1704	1111	877	2016	534	1820	944	1007	732	275	67.4	1200	2019	18 909	-		
Fisher	-	-	-	-	-	-	-	-	-	-	-	-	-	NR	NR	NR	NR	NR	NR	14 -		
Fox	-	48.0	-	12.4	73.5	-	30.3	123	29.1	50.0	39.1	72.6	-	610	25.0	135	-	-	18 69.9			
Hare	360	64.0	13.5	161	-	189	70.7	228	583	200	352	1211	593	2683	775	876	-	2500	18 543	-		
Lynx	-	-	-	-	-	-	-	-	-	-	-	-	-	NR	NR	NR	NR	NR	NR	13 -		
Marten	-	-	-	-	-	-	-	-	-	-	16.7	39.1	-	36.0	NR	NR	NR	NR	NR	NR	13 7.06	
Mink	-	-	-	-	-	-	-	-	-	-	-	19.6	-	36.0	NR	NR	NR	NR	NR	NR	13 4.28	
Moose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18 -		
Muskrat	-	-	-	-	12.4	172	-	40.4	-	29.1	66.8	19.6	72.6	-	NR	NR	NR	NR	NR	NR	13 31.8	
Otter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NR	NR	NR	NR	NR	NR	13 -	
Panther	-	-	-	-	-	-	-	-	-	-	52.6	-	16.7	-	-	NR	NR	NR	NR	NR	NR	13 -
Porcupine	44.9	80.0	40.6	24.8	-	24.5	-	-	-	-	-	-	-	-	-	-	-	-	-	192 18 25.1		
Skunk	-	16.0	27.1	-	-	-	-	-	-	-	52.6	-	-	-	-	-	-	-	-	NR	13 5.20	
Squirrel, F.	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NR	13 -	
Squirrel, R.	NR	5776	3166	6894	466	-	1653	4515	580	2653	2454	1487	1961	1007	NR	NR	NR	NR	NR	NR	12 4.03	
Weasel	-	13.5	-	-	-	18.9	-	-	-	-	-	16.7	78.3	-	NR	NR	NR	NR	NR	NR	12 2718	
Woodchuck	-	128	-	12.4	172	-	40.4	-	-	175	33.4	58.7	533	180	122	100	7.43	-	192	18 9.80		
Bittern	-	-	-	12.4	-	-	10.1	-	-	-	-	-	-	-	90.0	NR	NR	NR	NR	NR	13 8.65	
Duck, B.	-	320	583	745	1593	284	485	-	-	204	250	274	387	288	NR	NR	NR	NR	NR	NR	13 416	
Eagle, B.	-	-	-	12.4	49.0	-	-	-	-	29.1	16.7	19.6	-	-	NR	NR	NR	NR	NR	NR	13 9.75	
Goose, C.	-	-	-	-	-	-	-	-	2082	-	-	-	-	-	NR	NR	NR	NR	NR	NR	13 160	
Grouse, R.	2562	2272	2043	1650	1814	1704	1291	1666	1370	1168	724	508	1259	274	125	22.5	-	2885	18 1136			
Grouse, S.	-	189	62.1	98.0	-	121	70.2	117	200	411	169	36.0	NR	13 113								
Hawk	-	-	284	472	245	322	626	298	292	150	196	24.2	126	NR	NR	NR	NR	NR	NR	13 233		
Heron, GB.	-	13.5	12.4	49.0	-	50.1	-	-	437	16.7	19.6	-	18.0	NR	NR	NR	NR	NR	NR	13 12.3		
Loon	-	27.3	74.5	417	94.7	505	70.2	-	-	-	-	-	-	-	-	-	-	-	NR	13 151		

Table 2 (cont'd)

		1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1965	1965 Years Mean	No.
Merganser	-	1168	460	62.1	172	568	444	123	117	-	97.8	169	18.0	NR	NR	NR	NR	13	261	
Osprey	-	-	40.6	49.6	172	37.9	162	-	-	39.1	-	-	NR	NR	NR	NR	13	38.5		
Owl	-	-	62.1	-	-	152	17.5	233	-	19.6	24.2	144	NR	NR	NR	NR	13	50.2		
Whistler	-	32.0	-	87.0	98.0	189	566	25.1	321	66.8	411	121	18.0	NR	NR	NR	NR	13	148	
No. of Observers	7	7	8	8	10	14	14	18	16	12	16	8	18	15	14	11	8	12		
No. Miles	445	625	739	805	408	528	990	570	343	599	511	413	108	328	400	445	50	104		

Table 3. Number of Mammals and Birds Observed per 10,000 Boat Miles, Green River and Upper Kedgwick Watersheds, 1948 - 1965.  
 (Dash indicates zero record; NR indicates records were not kept on this species in certain years)

SP	No.																	
	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965 Years Mean
Bear	-	-	-	-	-	-	-	17.5	-	-	-	-	-	2239	-	-	-	18 125
Beaver	-	-	80.0	42.2	-	-	874	930	9920	297	5000	5348	844	556	296	299	-	- 429 18 1384
Bobcat	-	-	-	-	-	-	-	-	-	-	-	-	-	NR	NR	NR	NR	- 13 -
Chipmunk	NR	-	320	-	-	-	-	-	-	-	-	-	-	NR	NR	NR	NR	12 26.7
Deer	426	784	1600	1477	-	-	6214	3401	6666	9906	1818	5348	6168	10741	296	149	-	- 741 18 3144
Fisher	-	-	-	-	-	-	-	-	-	-	-	-	-	NR	NR	NR	NR	- 14 -
Fox	-	-	-	-	-	-	-	-	-	99.0	-	-	-	-	-	-	-	- 18 5.50
Hare	-	-	-	-	-	-	-	-	-	-	-	-	-	NR	NR	NR	NR	- 18 -
Lynx	-	-	-	-	-	-	-	-	-	-	-	-	-	NR	NR	NR	NR	- 18 -
Marten	-	-	-	-	-	-	-	-	-	-	-	-	-	NR	NR	NR	NR	- 13 -
Mink	-	-	240	126	-	-	-	-	-	-	-	-	-	64.9	92.6	NR	NR	- 13 -
Moose	-	-	-	80.0	126	-	-	194	553	2380	198	-	-	-	-	-	-	- 18 -
Muskrat	-	-	-	-	-	-	-	-	-	-	455	1304	130	185	NR	NR	NR	- 13 -
Otter	-	-	-	-	-	-	-	-	-	-	-	-	-	NR	NR	NR	NR	- 13 -
Panther	-	-	-	-	-	-	-	-	-	-	-	-	-	NR	NR	NR	NR	- 13 -
Porcupine	-	-	-	-	-	-	-	-	-	-	-	-	-	NR	NR	NR	NR	- 18 4.69
Skunk	-	-	-	-	-	-	-	-	-	-	-	-	-	NR	NR	NR	NR	- 13 -
Squirrel,F.NR	-	-	-	-	-	-	-	-	-	-	-	-	-	NR	NR	NR	NR	- 13 -
Squirrel,R.NR	-	-	-	-	-	-	-	-	-	-	-	-	-	NR	NR	NR	NR	- 12 -
Weasel	-	-	80.0	-	-	-	-	-	-	1135	-	-	-	NR	NR	NR	NR	- 12 206
Woodchuck	-	-	-	-	-	-	-	833	-	-	-	-	-	-	-	-	- 143 18 54.2	
Bittern	-	-	-	-	-	-	84.4	-	97.1	77.5	952	-	1304	64.9	370	NR	NR	- 13 226
Duck,B.	637	1569	3040	675	22500	1748	3401	9523	5050	1364	1739	130	833	NR	NR	NR	NR	- 13 4016
Eagle,B.	-	-	-	84.3	-	-	-	-	-	-	-	-	-	NR	NR	NR	NR	- 13 6.48
Goose,C.	-	1569	80.0	-	-	-	-	-	476	-	-	-	-	NR	NR	NR	NR	- 13 722
Grouse,R.	-	-	-	-	-	-	-	-	-	1666	-	227	-	-	-	-	-	- 18 105
Grouse,S.	-	-	-	-	-	-	-	-	-	70.2	-	-	-	NR	NR	NR	NR	- 13 5.40
Hawk	-	-	-	42.2	833	904	155	-	495	227	-	-	-	NR	NR	NR	NR	- 13 204
Heron,G.B.	-	-	160	169	-	388	465	-	-	-	-	-	-	741	NR	NR	NR	- 13 148
Loon	-	1360	1688	8333	1165	2513	2000	396	-	2045	5348	1623	556	NR	NR	NR	NR	- 13 1497

Table 3 (cont'd)

		SP	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	No.
Merganser	1915	2745	13280	5823	7500	4963	1938	19046	2072	5227	2609	-	1111	NR	NR	NR	NR	NR	NR	13	5248
Osprey	-	640	844	833	388	310	476	99.0	227	-	463	NR	13	329							
Owl	-	-	422	-	97.1	77.5	-	-	-	2609	64.9	-	NR	13	252						
Whistler	-	-	886	-	3381	1996	4961	-	909	1731	1688	919	NR	13	1267						
No. of Observers	7	?	8	8	10	14	14	18	16	12	16	8	18	15	14	11	8	12			
No. Miles	94	51	125	237	12	103	129	21	101	44	23	154	108	135	67	0	81	70			

Table 4. Mean Number per 10,000 Car Miles Observed Each Month,  
1948 - 1965. (Listed only for certain species, but the  
data are available for the others).

SP	May	June	July	August	Sept.	October
Bear	0.745	1.82	0.952	1.59	0.965	0
Beaver	2.05	1.21	0.714	0.198	0	0
Deer	138	261	212	193	159	143
Fox	16.9	32.9	39.1	42.9	28.5	6.24
Hare	162	175	145	61.4	37.4	8.32
Moose	1.86	1.73	0.952	0.495	0.724	4.16
Porcupine	9.51	5.64	5.16	3.87	1.69	6.24
Woodchuck	17.3	6.68	4.13	1.49	1.21	0
R. Grouse	70.8	60.9	80.6	95.8	81.4	378
No. Miles	53,637	115,312	125,979	100,825	41,418	4,808

Table 5. Sex and Size Data for Deer

Year	No.					Percent		
	Bucks	Does	Fawns	Undet.	Total Determined	Bucks	Does	Fawns
1950	39	140	30	77	209	19	67	14
1951	30	135	13	43	178	17	76	7
1952	19	115	18	160	152	13	75	12
1953	106	395	26	230	527	20	75	5
1954	97	291	45	414	433	24	66	10
1955	65	212	35	275	312	21	68	11
1956	72	196	40	432	308	23	64	13
1957	57	201	46	610	304	19	66	15
1958	30	205	50	443	285	11	72	17
1959	30	194	41	359	265	11	74	15
1960	260	599	70	692	929	28	64	8
1961	48	185	13	402	246	20	75	5
1962	25	110	13	182	148	17	74	9
1963	10	30	8	132	48	21	62	17
1964	9	85	18	180	112	8	76	16
1965	24	79	44	271	147	16	54	30
All	921	3172	510	4902	4603	20	69	11

Table 6. Sex and Size Data for Moose

Year	No.				Total Determined
	Bulls	Cows	Calves	Undet.	
1951	1	2	1	0	4
1952	1	1	0	2	2
1953	3	2	0	1	5
1954	1	1	0	0	2
1955	0	0	0	0	0
1956	0	2	0	2	2
1957	0	0	0	1	0
1958	0	2	0	2	2
1959	2	1	0	0	3
1960	0	0	0	0	0
1961	2	4	2	5	8
1962	0	0	0	0	0
1963	1	2	0	0	3
1964	0	0	0	0	0
1965	1	3	0	0	4
Total	12	20	3	13	35
%	34	57	9		

Table 7. Species Data for Hawks

Table 8. Species Data for Owls

Year	Barred	No.				Total Determined	Total Barred	Percent		
		Great- horned	Hawk Owl	Saw- Whet	Undet.			Great- horned	Hawk Owl	Saw- Whet
<b>1948</b>										
1949	0	3	0	0	6	3	0	100	0	0
1950	0	2	0	0	4	2	0	100	0	0
1951	0	14	5	4	5	23	0	61	22	17
1952	0	1	0	1	2	2	0	50	0	50
1953	1	5	0	1	1	7	14	72	0	14
1954	3	1	0	12	0	16	19	6	0	75
1955	0	1	0	1	0	2	0	50	0	50
1956	6	5	0	1	3	12	50	42	0	8
1957	2	2	0	0	1	4	50	50	0	0
1958	1	1	0	1	0	3	33	33	0	34
1959	0	3	0	1	0	4	0	75	0	25
1960	2	4	0	1	1	7	29	57	0	14
1961										
1962										
1963										
1964										
1965										
All	15	42	5	23	23	85	18	49	6	27

Table 9. Number of Mammals and Birds Observed per 10,000 Miles on  
Unsprayed Kedgwick Check Area. (These data were included  
with Green River in Tables 1 and 2).

SP	Car				Foot			
	1951	1952	1958	1960	1951	1952	1958	1960
Bear	52.9	-	-	6.89	-	-	-	-
Beaver	-	-	3.91	-	-	-	208	-
Bobcat	-	8.39	1.96	-	385	-	-	-
Chipmunk	17.6	-	23.5	19.3	-	-	312	-
Deer	300	134	564	1024	-	333	1979	1630
Fisher	-	-	-	-	-	-	-	-
Fox	-	33.5	23.5	15.2	-	-	-	-
Hare	-	-	106	55.1	-	-	365	296
Lynx	-	-	-	-	-	-	-	-
Martin	-	-	-	-	-	-	-	-
Mink	-	-	-	-	-	-	-	74.1
Moose	35.3	-	-	-	-	-	-	-
Muskrat	-	-	-	-	-	-	52.1	-
Otter	-	-	-	-	-	-	-	-
Panther	-	-	-	-	-	-	-	-
Porcupine	-	83.9	-	-	-	-	-	-
Skunk	-	-	-	-	-	-	-	-
Squirrel, F.	-	-	-	-	-	-	-	-
Squirrel, R.	370	16.8	94.0	37.2	1154	-	1042	222
Weasel	-	-	-	-	-	-	-	-
Woodchuck	-	16.8	3.91	4.13	-	-	52.1	-
Grouse, R.	600	386	116	149	3076	8000	833	2000
Grouse, S.	-	-	5.87	13.9	-	-	67.7	74.1
Hawk	123	8.39	25.4	19.3	1538	-	-	222
Heron, G.B.	-	-	-	-	-	-	-	-
Loon	-	-	-	-	-	-	52.1	-
Merganser	-	-	-	-	-	-	-	-
Osprey	-	-	-	-	-	667	-	-
Owl	-	-	-	-	-	-	-	-
Whistler	-	-	-	-	-	-	-	-
No. Miles	567	1192	5108	7255	26	30	192	135